

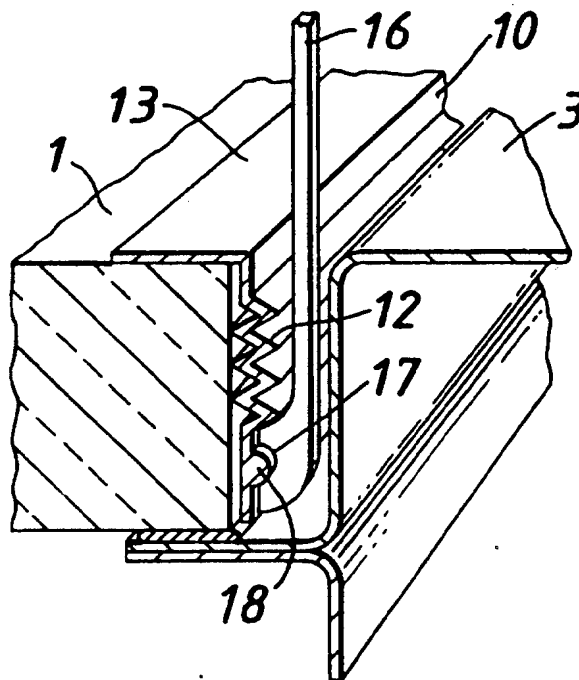
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(54) Title: WINDOW MASKING STRIP

(57) Abstract

A plastics window masking strip is used for masking the edge of a window (1) of a vehicle in preparation for painting or refinishing the vehicle body work. The strip is of indefinite length and has a portion (11) intended to be bonded to the lower part (19) of the edge of the window glass and a portion (10) intended to be bonded to the upper part (14) of the glass. A lip portion (13) can be folded over to cover the face of the glass at the periphery of the window. In order to accommodate varying depths and thicknesses of glass, a concertina-like portion (12) allows the width of the strip to be varied.



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WINDOW MASKING STRIP

This invention relates to a window masking strip, particularly for masking windows of a vehicle in the course of painting or refinishing the vehicle.

In my British Patent No. 2254023, there is described a method of masking the window sealing gaskets of a vehicle which enables the body work to be refinished under the edge of the gasket but without soiling the gasket with paint. While the majority of vehicle windows are sealed in place with a rubbery window gasket, an alternative system which is becoming more widely used is gasket-less and involves bonding the window glass directly into the window opening, using a transparent or translucent adhesive,. In order to allow for tolerances, the edge of the window glass is spaced from the edge of the window opening by a channel which is commonly about 10 mms wide. This arrangement leads to difficulties in refinishing a damaged vehicle unless the window glass is totally removed for the finishing process. However, removal and replacement of a window glass in such circumstances adds substantially to the cost of repairing the vehicle.

It is, therefore, an object of the present invention to provide a simpler system for masking the edge of the glass for such purposes.

According to one aspect of the present invention, therefore, there is provided an elongate plastics window

masking strip for masking the periphery of a window in preparation for painting, said strip having means for securing a first marginal portion to an edge of the glass and for securing a second marginal portion of the strip to the face of the glass, said strip including an extensible portion between the two marginal portions to allow the effective width of the strip to be varied.

Preferably, the extensible portion of the strip comprises a concertina portion which is extensible by deflection of the concertina strips. Masking strips in accordance with the invention are conveniently manufactured by extrusion.

In use of the strip in accordance with the invention, the first marginal portion is inserted into the channel between the glass and the bodywork and secured to the edge of the glass, e.g. by means of an adhesive coated onto one face of the marginal portion. Alternatively, the strip may be held by physical means. For example, the strip or the marginal portions may be manufactured from a very smooth, flexible plastics material (so-called 'window stick grade') which adheres by excluding air between the glass and the plastics surface. Preferably, a pressure-sensitive adhesive is used and the marginal portion pressed into firm contact with the edge of the glass. This is preferably carried out using a tool such as a moulded plastic spatula-like tool, which may be guided on

a moulded rib formed in the strip. The other marginal portion of the strip preferably includes a fold-over lip portion, which is also preferably coated with an adhesive so that it can be bonded to the exposed face of the glass. The extensible portion of the strip allows the strip to be used for a variety of window glasses having different thicknesses.

Further features and advantages of the present invention will become apparent from the following description and accompanying drawings, in which:-

Figure 1 is a perspective view of the strip adhered to the edge of a window glass,

Figure 2 is a perspective view on a slightly enlarged scale of part of a section of the strip shown in Figure 1,

Figure 2A is a view similar to Figure 2 of a strip without a lower lip,

Figure 3 is a sectional view through a window and associated vehicle body work showing the strip of Figure 2A in place,

Figure 4 illustrates the use of a tool for bonding the lower edge of the strip to the edge of the glass,

Figure 4A is a perspective view illustrating a preferred method of installation of the strip as shown in Figure 4, and

Figure 5 is a perspective view of a second embodiment.

Referring to the drawings, the masking strip in accordance with the invention is intended for use with vehicle windows in which a window glass 1 is bonded into the window opening 2 of a vehicle body work 3. The inner peripheral face 4 of the window is secured into the opening by means of a resin bead 5 (normally transparent), which is present as a film between the edge 4 and a ledge 6 of the body work. The resin used to bond the glass to the body work occasionally extends into the channel 7 between the body work and the edge of the glass and, accordingly, the depth of the channel 7 may vary over different portions of the window opening as well as vary as between different windows and different vehicles. It is, however, important in refinishing the vehicle that paint should penetrate into the channel 7 and coat the inside 8 of the window opening throughout the depth of the channel 7. The masking strip in accordance with the present invention enables such refinishing to be carried out without removing the glass or soiling the window with paint.

As shown in Figures 1 to 4, the masking strip of the invention comprises marginal portions 10 and 11 connected by an extensible portion 12. The portion 11 is intended to be bonded to the lower part 9 of the edge of the glass 1, while the portion 10 is intended to be bonded to the upper part 14 of the glass edge. In order to protect the

exposed face of the edge of the window 1 from over-spray, the masking strip may include a foldable extension or lip portion 13, which can be folded over to cover the face at the periphery of the glass. The inner surfaces of portions 10, 11 and 13 of the strip which are intended to face the glass are coated with an adhesive, which is preferably pressure-sensitive so that the strip can be bonded to the glass but also removed readily after the refinishing work has been concluded.

In order to accommodate varying depths of channels 7 and thicknesses of glass, the masking strip includes an extensible portion 12 which is extendible so as to vary the overall width of the strip. Alternative ways may be provided to permit the strip to expand in a width-wise fashion. One example is shown in Figure 5 in which the extensible portion 12 is tubular. Alternatively, the extensible portion may be an elastomeric foamed portion. The extensible portion may be formed with one or more tubular ribs. However, a folded or concertina-shaped extensible portion is easier to produce by extrusion, which is the most convenient method of producing the strip in accordance with the invention.

The strip may also include a lower lip 15, when there is a gap between the glass edge 4 and the ledge 6 to which it is bonded, but often this may be omitted.

The strip is conveniently produced by extrusion and

after extrusion, the lips 13 and 15 may be folded flat so that the strip can be reeled for transport and storage. However, since the lip is extruded in the folded form it will retain a plastic memory and return to that form when released from the reel.

A pressure-sensitive adhesive may be coated onto the inside surfaces of the portions 10, 11 and 13, immediately after the extrusion process. Alternatively, other kinds of adhesives may be employed, such as a solvent-sensitised adhesive which is sensitised and rendered tacky just before use.

Where a pressure-sensitive adhesive is used, it may be necessary to apply a release paper to the adhesive surfaces prior to reeling. However, an alternative is to provide a release surface on the outer faces of the portions 10, 11 and 13, so that it can be reeled and unreeled without an intervening release material.

During fitting of the strip, it may be important to ensure that the lower edge 11 is satisfactorily bonded to the edge of the glass. In one embodiment of the invention this may be achieved by means of a tool 16 which is shaped with a recess 17 designed to engage a rib 18 moulded in the marginal portion 11 of the strip. By engaging the rib in the tool, the strip may be pressed down into the base of the channel and urged into firm contact with the edge of the glass.

CLAIMS:-

1. An elongate plastics window masking strip for masking the periphery of a window in preparation for painting, said strip having means for attaching first and second marginal portions to an edge of the glass and an extensible portion between the two marginal portions to allow the effective width of the strip to be varied.

2. A strip as claimed in claim 1 wherein the extensible portion has a concertina-like form.

3. A strip as claimed in claim 1 or claim 2 which is extruded from a thermoplastic material.

4. A strip as claimed in any one of the preceding claims wherein the marginal portions are coated with an adhesive for attaching the strip to the edge of the glass.

5. A strip as claimed in any one of the preceding claims wherein one of said marginal portions has an extension portion adapted to be folded over into contact the glass.

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FIG. 1.

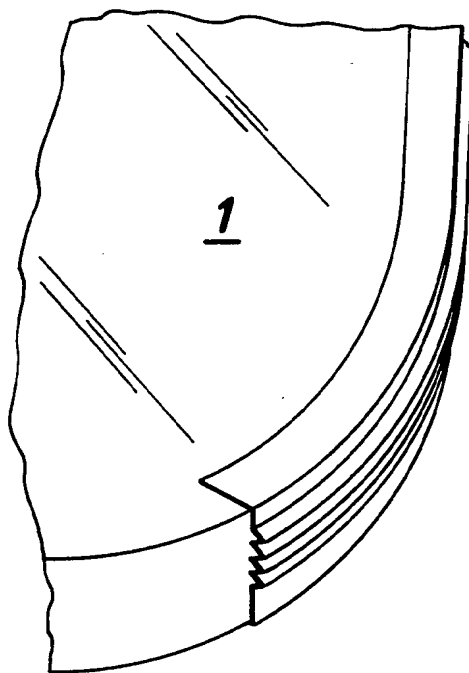


FIG. 2.

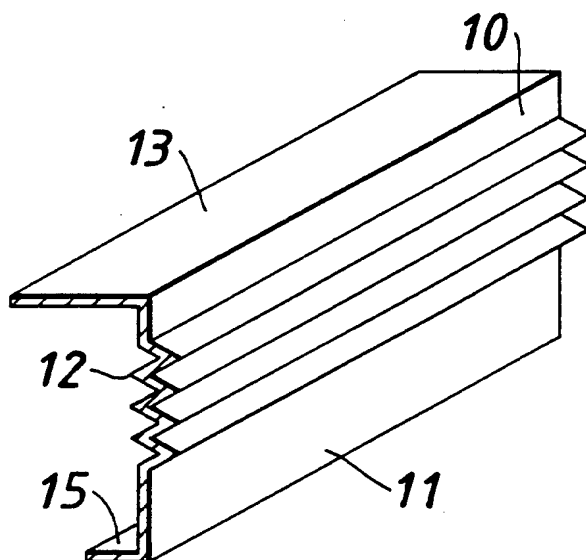
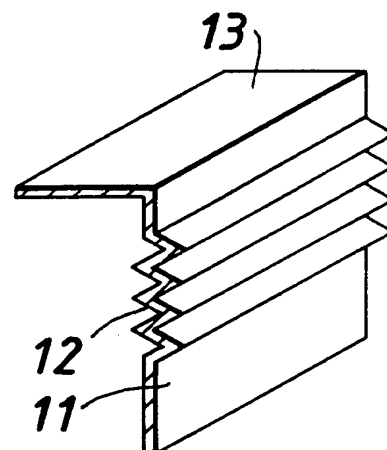


FIG. 2A.



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FIG. 3.

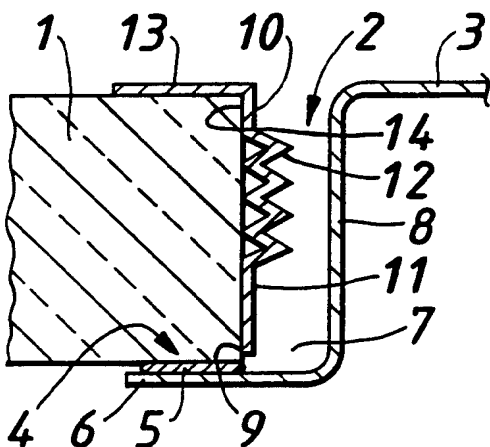


FIG. 4.

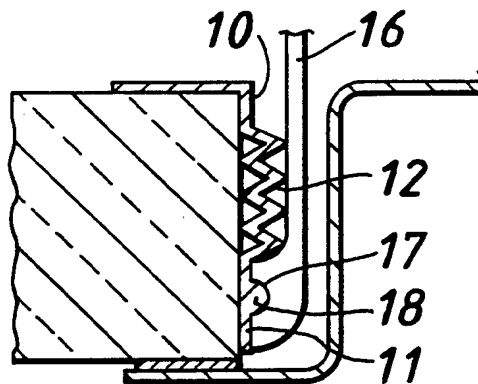


FIG. 4A.

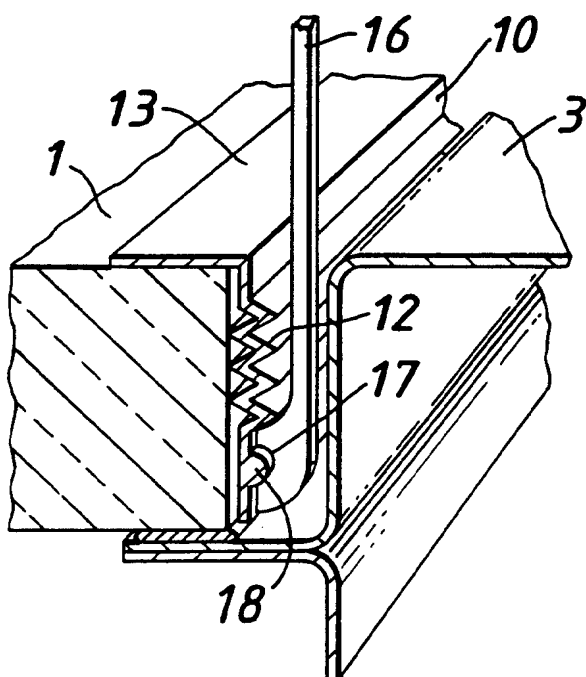
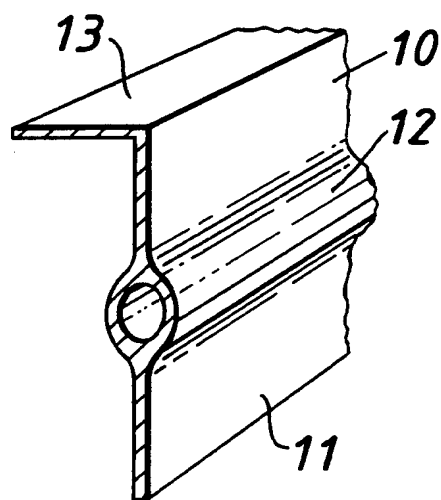


FIG. 5.



INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 94/00733

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 B05B15/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 5 B05B B05C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO,A,92 20461 (RIBIC) 26 November 1992 see the whole document ---	1-5
Y	EP,A,0 384 695 (NAGOYA) 29 August 1990 see abstract; claim 1; figure 1 ---	1-5
A	GB,A,2 223 425 (DONALD MURRAY WESTERN) 11 April 1990 see abstract; figure 2 -----	1

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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30 June 1994

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A-9220461	26-11-92	DE-A- 4123964 DE-U- 9106206 AU-A- 1689192 EP-A- 0518403 EP-A- 0585272	19-11-92 11-07-91 30-12-92 16-12-92 09-03-94
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GB-A-2223425	11-04-90	NONE	